

Appl. No. : 09/908,994  
Filed : July 17, 2001

### REMARKS

Claims 10-28 are pending and stand rejected by the Examiner. Claims 10 and 21 have been amended to further clarify what is meant by the recitation that the flow path contains a plurality of solid supports that are “located in series in the flow path.” Amended Claims 10 and 21 now clearly recite that “the mixture flows serially through each of the plurality of solid supports,” which emphasizes that the solid supports are in the flow path. No new matter has been added by these amendments. Support can be found, for example, on page 8, lines 33 and 34 (“a flow passing through a plurality of supports in series can be formed); page 8, lines 11-24; page 9, lines 18-23; and in figures 1-4.

As described below, by clarifying the previous language these amendments clearly place the claims in condition for allowance. Their consideration and entry will not require any new searching and their entry is appropriate. The cited art, at best, discloses binding areas that only border a flow path. In contrast, the present claims are now explicit that the “plurality of solid supports” are located in series within the flow path. As discussed below, this feature makes possible simultaneous release and elution (Claim 14) without resulting in mixing, something that the ‘486 patent is not capable of achieving, as described below. Applicants respectfully submit that this distinction should have been considered by the Examiner during his review of original Claim 14.

### Amendments to the Specification

Applicants have amended the specification to remove the general incorporation by reference statement objected to by the Examiner. While the Applicants do not agree with the Examiner’s analysis of the case law or the particular facts for this situation, the issue does not appear to be relevant to the instant claims. As such, the Applicants have amended the specification accordingly.

### Previously submitted support for Claims 21-28

Contrary to the Examiner’s finding in the Office Action, Applicants’ previous Response did supply explicit support for the added claims. Page 5 of the previous Response stated that support could be found (aside from the specification generally) “in original Claims 10-20.”

Appl. No. : 09/908,994  
Filed : July 17, 2001

Applicants note that Claim 21 is the combination of previous Claims 10, 11, and 12 (Claims 11 and 12 depended from Claim 10). New Claims 22-28 practically mirror original Claims 13, 14, and 16-20. Thus, the previous response adequately identified support for Claims 21-28. In view of this, Applicants request their entry and consideration.

*Claims 21-28 are adequately described in the originally filed application:*

Claims 21-28 stand rejected under 35 U.S.C. §112 as allegedly failing to comply with the written description requirement for lack of identified support. As noted above, in the previous Response support for Claims 21-28 was identified (as appropriate combinations of original Claims 10-20). Further support can be found, for example, on page 2, line 14 to page 3, line 23; page 12, line 34 to page 13, line 30; and page 14, line 1 to page 22, line 20. Thus, this rejection should be withdrawn.

*Claims 10-28 are nonobvious over the cited art.*

Claims 10-28 stand rejected under 35 U.S.C. §103(a) as allegedly obvious over Heller in view of Okano. In particular, the Examiner has alleged that Heller's arrangement of the "attachment layers" are the same as the arrangement of the "solid supports" that is currently being claimed. Applicants respectfully traverse this rejection.

The independent claims recite that the claimed invention involves 1) a series of solid supports that are 2) in the flow path. In contrast, Heller (and the other cited art) teaches solid supports that are either outside of, or possibly border, the flow path. Thus, Heller (alone or in combination with the other cited art) does not teach the recited element of a solid support that is contained in the flow path.

To further emphasize this distinction, the independent claims have been amended to state that the "the mixture flows serially through each of the plurality of solid supports". This element thus clarifies the relationship between the flow path, the solid support, and the mixture. It is very clear that the cited art does not teach the element.

The placement of the solid support in the flow path provides many advantages over the device shown in Heller. For example, a serial arrangement in which the solid supports are in the flow path can allow for the simultaneous elution of two compounds, without mixing (see Claim

Appl. No. : 09/908,994  
Filed : July 17, 2001

14). Because each of the claimed elements has not been taught by the cited art (or even the Examiner's proposed combination), a *prima facie* case of obviousness has not been established for the independent claims. Of course, those claims that depend from the independent claims, dependent Claims 11-20 and 22-28, are also novel and nonobvious for the above reasons. Applicants respectfully request that the rejection be withdrawn and the claims allowed.

*Claim 14 is non-obvious.*

While Claim 14 depends from Claim 10, Applicants note that Claim 14 is also non-obvious for additional reasons. Claim 14 recites that the "heating of the first and second supports is performed simultaneously, and the polynucleotides released thereby are eluted in separate form, without mixing with each other." The Examiner has not commented on how this can be achieved with the cited art. Indeed, the record is silent in regard to the claimed elements of Claim 14. Applicants do not believe that the claimed elements and recited result can be achieved by the Examiner's proposed combination because the support areas in the cited art are part of the walls that form the flow path and are not actually in the flow path. The cited art has large bulk solutions and mixing of two compounds would occur if the two compounds were simultaneously released by heating of the respective binding areas.

#### **Finality is Improper**

Because the Examiner has not supplied any reason for rejecting the discussed element in Claim 14 in any of the previous Office Actions, the finality of the "Final Office Action" is clearly erroneous, as substantial aspects of the claims have not been examined in the previous Office Actions.

#### **CONCLUSION**

In view of the foregoing amendments and remarks, Applicants respectfully submit that the pending claims are in condition for allowance and request the same. If, however, some issue remains that the Examiner feels can be addressed by Examiner Amendment, the Examiner is cordially invited to call the undersigned for authorization. Alternatively, Applicants respectfully

Appl. No. : 09/908,994  
Filed : July 17, 2001

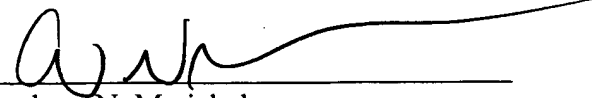
request that the finality of the Office Action be withdrawn until all of the claims have been addressed on their merits.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: September 12, 2001

By:   
Andrew N. Merickel  
Registration No. 53,317  
Attorney of Record  
Customer No. 20,995  
(415) 954-4114

2821137  
083106